

Program Information

The Anoka Technical College Machine Technology Certificate 1 is a 16-credit program that prepares students for entry level skills to set up and operate the following equipment: manual lathes, drill, mills and grinders. Program graduates are skilled in the areas of blueprint reading, math and inspection.

Machinists working in this field are expected to set up and operate manual lathes, drills, mills and grinders. They are able to inspect and produce parts to the desired dimensions under proper supervision.

Program Learning Outcomes

By completing this program, students will achieve the following learning outcomes.

1. The student will demonstrate machine skills and practices consistent with the manufacturing industry.
2. Exhibit safety principles and practices in a manufacturing environment.
3. Communicate effective use of machine shop theory and process terminology.
4. Work efficiently as a member in a machine shop environment to manage time and meet project deadlines.
5. Work effectively as a member of a team while accepting constructive criticism.

Course Prerequisites

Although no prior knowledge or experience is necessary to succeed in this program, a background in shop math and algebra, mechanical drafting, machine shop and mechanical skills can be helpful.

Some courses may require appropriate test score or completion of basic math, basic English and/or reading courses with a "C" or better.

Graduation Requirements

All Anoka Technical College students seeking an Associate in Applied Science (AAS), diploma, or certificate must meet the cumulative grade point average (GPA) of 2.0 or higher.

Transfer Opportunities

To see how credits from this program may transfer into other Anoka Technical College programs or into a program at another college, visit:

- [Minnesota Transfer](http://www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search): (www.mntransfer.org/students/plan/s_agreements.php?numResults=25&archive=false&from_inst=70&from_prog=&to_inst=&Search=Search)
- [Anoka Technical College transfer student](http://www.anokatech.edu/BecomeStudent/Transfers.aspx) (www.anokatech.edu/BecomeStudent/Transfers.aspx)

Industry Information

The machinist is a skilled metal worker who produces metal parts by using machine tools and hand tools. Training and experience enable the machinist to plan and carry through all the operations needed to turn out a finished machine product and to switch readily from one kind of product to another. The machinist's background and knowledge enables him/her to turn a block of metal into an intricate, precise part.

All options are an art as well as a skill, and are considered to be demanding occupations. There is a great variety in the construction of dies and molds, depending on the design of a part, the type of materials used, the ingenuity of the designer, and the knowledge and skill of the die and mold maker, who must machine intricate components of various tooling to tolerances expressed in fractions of one-thousandths of an inch.

Wages/Outlook/Advancement

Wage information is available from the [Minnesota Department of Employment and Economic Development](https://mn.gov/deed/job-seekers/job-outlook/) (https://mn.gov/deed/job-seekers/job-outlook/).

Gainful Employment

Follow this link for a [Gainful Employment Report](#).

Technical Education: 16 Credits

- MACH 1101 Milling 4
 - MACH 1106 Lathe 3
 - MACH 1121 Metrology 2
 - MACH 1132 Blueprint Reading I 3
 - MACH 1140 CAD I 1
 - MACH 1171 Math for Machinist I 3
- OR**
- MATH 1650 College Trigonometry 3

Also see: CNC Design & Manufacturing Technology AAS, Advanced CNC Machine Technology diploma and Machine Technology Certificate 2, and 3

Start Dates

Fall Semester.....August
Spring SemesterJanuary

Faculty Contact

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For information on how to apply, to schedule a tour, or for service during summer hours, contact Enrollment Services at 763-576-7710 or EnrollmentServices@anokatech.edu

Sample Program Sequence

Full Time

First Semester	
MACH 1101.....	4
MACH 1106.....	3
MACH 1121.....	2
MACH 1132.....	3
MACH 1140.....	1
MACH 1171.....	3
OR MATH 1650.....	3
TOTAL	16



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